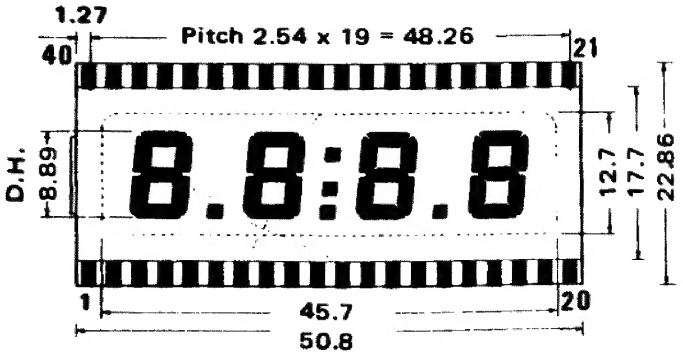
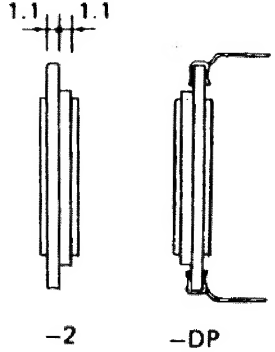
# VI-401-DP, VI-401-2

DIGIT HEIGHT 8.89 mm (0.35")




DRIVER: OKI MSM58292, HD61603

| Pin No | Segment | Pin No | Segment | Pin No | Segment | Pin No | Segment |
|---|---|---|---|---|---|---|---|
| 1 | COM | 14 | 2D | 27 | 2G | 40 | COM |
| 2 | NC | 15 | 2C | 28 | L | | |
| 3 | NC | 16 | 2DP | 29 | 3B | | |
| 4 | NC | 17 | 1E | 30 | 3A | | |
| 5 | 4E | 18 | 1D | 31 | 3F | | |
| 6 | 4D | 19 | 1C | 32 | 3G | | |
| 7 | 4C | 20 | 1B | 33 | NC | | |
| 8 | 4DP | 21 | 1A | 34 | 4B | | |
| 9 | 3E | 22 | 1F | 35 | 4A | | |
| 10 | 3D | 23 | 1G | 36 | 4F | | |
| 11 | 3C | 24 | 2B | 37 | 4G | | |
| 12 | 3DP | 25 | 2A | 38 | NC | | |
| 13 | 2E | 26 | 2F | 39 | NC | | |

## TYPICAL ELECTRO-OPTICAL CHARACTERISTICS

| PARAMETER \ FLUID* | | | STANDARD (S) | | | | | | | | WIDE TEMPERATURE (W) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | – | MULTIPLEX (LV) | | | MULTIPLEX (HV) | | | LV | – | MULTIPLEX (HV) | | | |
| Drive Method | | | Static | 1/2 | 1/3 | 1/4 | 1/2 | 1/3 | 1/4 | 1/16 | Static | 1/2 | 1/3 | 1/4 | 1/16 |
| Operating Temperature† | | C | –10 ~ +60 | 0 ~ 50 | | | –10 ~ +60 | | | 0 ~ +50 | 40 ~ +84 | 30 ~ +80 | | | |
| Storage Temperature | | C | – 20 ~ +60 | | | | 20 ~ +70 | | | –20 ~ +60 | –40 ~ +85 | | | | |
| Operating Voltage (25C) ■ | | V | 3.0 | 3.1 | | | 4.5 | 4.5 | 4.7 | 4.6 | 5.0 | 4.5 | 4.5 | 4.7 | 7.6 |
| Rise Time | 0C | mSec | 350 | 400 | | | 200 | | | 600 | 100 | 180 | | | |
| | 25C | | 120 | 120 | | | 80 | | | 150 | 40 | 55 | | | |
| Decay Time | 0C | mSec | 250 | 350 | | | 180 | | | 550 | 100 | 110 | | | |
| | 25C | | 100 | 120 | | | 80 | | | 150 | 50 | 50 | | | |
| Temperature Coefficient (0 – 40C) $V_{10}$ | | mV/C | – | –10.0 | | | –7.5 | | | –7.0 | – | –7.5 | | | |
| Operating Frequency Range | | Hz | 30 – 300 | 60 – 300 | | | | | | 60 – 100 | 30 – 300 | 60 – 300 | | | 60 – 100 |
| Capacitance | | $pF/mm^2$ | 10 | | | | | | | – | 10 | | | | – |
| DC Resistance | | MΩ | 100 | | | | | | | | 100 | | | | |
| Contrast Ratio | | | 20:1 | | | | | | | 10:1 | 20:1 | | | | 10:1 |
| Current Consumption (Per Active Area) | | $nA/mm^2$ | 15 | | | | | | | | 12 | | | | |

## TYPICAL ENVIRONMENT SPECIFICATIONS▲

| | | |
|---|---|---|
| Without Polarizer, 80C 95% RH | > 200 hours | > 400 hours |
| With Polarizer, 60C 75% RH | > 300 hours | > 1200 hours |

* For other fluids, please consult VARITRONIX
† No temperature compensation, drive voltage of Multiplexed display must be adjusted for optimum operation in the extreme temperature ranges
▲ Expected lifetime under normal operating conditions – 50,000 hours (standard)/100,000 hours (wide temperature)
■ Maximum DC Voltage allowable at 50 mV